

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

Page 1 of 4

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT NO./TASK NO.	JOB ORDER NUMBER	APPROP. FY
QSS Group, Inc.	NAS5- 99124 265 AMENDMENT	415-616-43-29-89	2000

TASK TITLE: (NTE 80 characters; include Project name)

GOES Project Mission Operations Services -- GOES N-Q

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	MAIL CODE	PHONE
William Lebar <i>[Signature]</i>	4/13/00	415	415	301-286-3004
BRANCH HEAD	DATE	CODE		PHONE
Martin A. Davis <i>[Signature]</i>	4/13/00		415	301-286-8998
CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)	DATE	CODE		PHONE
Robert S. Lebar, Jr. <i>[Signature]</i>	4/14/00		560	301-286-6588
FLIGHT HARDWARE, CRITICAL GSE/OR SOFTWARE? (If YES, NEED CODE 303 CONCURRENCE NEXT BLOCK)	CONTRACTING OFFICER'S QUALITY REP.		DESIGNATED FAM:	
<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.

(To be completed by Contracting Officer)

C.O. Requested Quote on:
Date:

Contractor will develop specification or statement of work under this task for a future procurement. ☒ NO ☐ YES

Flight hardware will be shipped to GSFC for testing prior to final delivery. ☐ NO ☐ YES ☒ N/A

Government Furnished Property/Facilities: ☐ NO ☒ YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)

Onsite Performance: ☒ NO ☐ YES If yes: ☐ TOTAL ☐ PARTIAL
If partial, indicate onsite work in SOW by asterisk (*)

Surveillance Plan Attached: ☒ NO ☐ YES

Highlighted Contract Clauses: (to be completed by Contracting Officer)

INCENTIVE FEE STRUCTURE (check one)

(See Contract NAS5-99124, Attachment K, Incentive Fee Plan)

	<input checked="" type="checkbox"/> No. 1	<input type="checkbox"/> No. 2	<input type="checkbox"/> No. 3	<input type="checkbox"/> No. 4	<input type="checkbox"/> No. 5
Cost	10%	50%	25%	25%	%
Schedule	15%	25%	25%	50%	%
Technical	75%	25%	50%	25%	%

(To be completed by Contracting Officer)

The target cost of this task order is \$ _____.

The target fee of this task order is \$ _____.

The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ _____.

The maximum fee is \$ _____.

The minimum fee is \$0.

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

SIGNATURE OF CONTRACTING OFFICER

DATE

TYPED NAME OF CONTRACTING OFFICER

CONTRACTOR'S ACCEPTANCE:

AUTHORIZED SIGNATURE

DATE

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QSS Group, Inc.		NAS5- 99124	TASK NO. 265 AMENDMENT														
Applicable paragraphs from contract Statement of Work: Function 2 I																	
STATEMENT OF WORK: (Continue on blank paper if additional space is required) <i>(This is a follow-on to Task 85 under this contract; uninterrupted transition is required.)</i> <p>The contractor shall establish a Mission Operations Support Team (MOST) at an off-site facility to provide services to the GOES Project at the NASA/Goddard Space Flight Center in conducting the GOES-N-Q Mission. The MOST shall provide expertise to perform systems engineering services and shall use the computing resources of the Satellite Operations Control Center (SOCC) at NOAA in Suitland, Maryland, to support mission operations. The task activities are described below:</p> <p>a. Engineering Services: The MOST shall provide personnel and facilities to perform the following systems engineering functions. Some travel is required to the spacecraft contractor's plant for conducting/participating in reviews, tests, etc.</p> <ol style="list-style-type: none"> 1. Requirements Development Services: The MOST shall participate with the NASA GOES Project in the development of detailed operations requirements. This effort shall include the development of flight operations requirements End-to-End (ETE) test goals and requirements, PLT goals and requirements, and spacecraft hand-over criteria. 2. Review and Evaluate Products: The MOST shall participate with the NASA GOES Project in the review and evaluation of all products for flight operations generated by the spacecraft contractor. These products include mission operations plans, transfer orbit operations plans, ground system equipment (GSE) design, interfaces and implementation plans, training and simulations plans, spacecraft operations documentation, spacecraft bus command procedures, spacecraft bus contingency operations procedures, scripts, and databases. <p>PERFORMANCE SPECIFICATIONS:</p> <p>CP Development: Develop Command Procedures (CP's) in preparation for End-to-End #2.</p> <p>End-to-End #1A Procedure Review: Review End-to-End #1A procedures.</p> <p>Review/Evaluate Contractor Deliverables: Review and evaluate contractor deliverables. Provide report on results of review/evaluation.</p> <p>Monthly Status Reports: Monthly reports shall contain summary of activities completed during month, planned activities for the next month, problems/issues, and recommended action(s).</p> <p>Travel/Trip Status Reports: Travel/trip reports shall contain summary of activities completed during travel item, problems/issues, and recommended action(s).</p> <p>APPLICABLE DOCUMENTS: None.</p> <p>TASK END DATE: 9/30/00</p> <p>MILESTONES/DELIVERABLES AND DATES:</p> <table> <tr> <td>End-to-End #1A Procedure Review:</td> <td>7/5/00</td> </tr> <tr> <td>CP Development:</td> <td>5/1/00 to 9/30/00</td> </tr> <tr> <td>Review/Evaluate Contractor Deliverables:</td> <td>5/1/00 thru 9/30/00</td> </tr> <tr> <td>Monthly Status Reports:</td> <td>Last working day of month</td> </tr> <tr> <td>Travel/Trip Status Reports:</td> <td>5 days after return from trip</td> </tr> </table> <p>PERFORMANCE STANDARDS:</p> <table> <tr> <td>Schedule:</td> <td>On-time delivery/completion of the above</td> </tr> <tr> <td>Technical:</td> <td>ATR's acceptance of the above</td> </tr> </table> <p>FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM): William Lebar, building 6, room W229</p>				End-to-End #1A Procedure Review:	7/5/00	CP Development:	5/1/00 to 9/30/00	Review/Evaluate Contractor Deliverables:	5/1/00 thru 9/30/00	Monthly Status Reports:	Last working day of month	Travel/Trip Status Reports:	5 days after return from trip	Schedule:	On-time delivery/completion of the above	Technical:	ATR's acceptance of the above
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QSS Group, Inc.

NAS5-

99124

TASK NO.

265

AMENDMENT

STATEMENT OF WORK: (Continued)

3. Review and Evaluate Pre-Launch Preparation Activities: The MOST shall participate with the NASA GOES Project in the review and evaluation of all pre-launch preparation activities performed by the spacecraft contractor to ensure the readiness for launch. These activities include data flow tests, ETE compatibility tests, training and simulations.

4. Participate in Program Reviews and Technical Reviews: The MOST shall participate with the NASA GOES Project in all key program reviews and technical reviews conducted by the spacecraft contractor. These reviews shall include flight operations reviews, ground systems reviews, operations-related documentation reviews, all technical reviews on operations scripts, databases, spacecraft command procedures, contingency operations procedures, and operations handbooks. In addition, the MOST shall participate with the NASA GOES Project in instrument related reviews and related working group meetings.

- b. **Mission Operations Services:** The MOST shall provide personnel and facilities to perform the following functions. Some travel is required to the spacecraft contractor's plant for conducting/participating in reviews, tests, etc.
 1. Launch Preparation and Operations:
 - Participate in Manufacturer provided training sessions such as ROP walk-throughs
 - Develop and maintain Command Procedures
 - Develop and maintain Operations Scripts for instruments
 - Develop and maintain Contingency Operations Procedures for instruments
 - Develop Post-Launch Test (PLT) plan and test procedures
 - Provide services on mission simulations, rehearsals, and training
 - Provide services while the spacecraft contractor is conducting orbit raising operations
 - Provide around the clock engineering services in monitoring spacecraft/instruments health and safety
 - Provide engineering services in conducting PLT and test data analysis

 2. Spacecraft and Ground System Testing:
 - Plan and conduct ground system ETE tests with the spacecraft using the NOAA SOCC to send instrument commands and to process telemetry
 - Provide services to the Mission Readiness Manager in the coordination of resources (i.e., Ground Network [GN], NOAA ground systems, and SOCC) and tests required for Integration Testing (I&T), network interface testing, compatibility testing, network proficiency testing and ETE testing
 - Provide ground system requirements, assist in validating changes to the NOAA SOCC ground systems
 - Monitor all ground system tests.
 - Review and evaluate ground system related documentation.

 3. On-Orbit Engineering Services:
 - Participate with NOAA on special event operations, such as yaw-flip maneuver, station-keeping, and battery reconditioning
 - Provide real-time anomaly investigation and resolution on operational GOES spacecraft
 - Analyze engineering trending data and document analysis results as well as any anomalous phenomena

 4. System Maintenance and Configuration Management
 - Provide enhancement and maintenance effort on the Imager/Sounder simulators
 - Monitor HSC simulator testing and review simulator related documentation.
 - Provide enhancement and maintenance effort on the MOST Local Area Network (LAN), servers and nodes
 - Maintain HSC simulator configuration to support CP development
 - Provide CM effort on all systems, LAN databases, command procedures and scripts
 - Develop and maintain LAN utilities software, including database management tools and script generator

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STATEMENT OF WORK: (Continued)

5. Operations Reviews and Working Groups Services/Coordination:

- Provide and coordinate MOST inputs to Mission Readiness Working Group (MRWG)
- Provide and coordinate MOST inputs to Flight Operations Review (FOR)
- Provide and coordinate MOST inputs to Operations Readiness Review (ORR)
- Provide and coordinate MOST inputs to External Independent Readiness Reviews (EIRR)
- Provide and coordinate MOST inputs to Network Operations Working Groups (NOWG)
- Provide and coordinate MOST inputs to Mission Operations Working Groups (MOWG)
- Provide and coordinate MOST inputs for all other reviews/working groups.

6. Documentation Support:

- Produce and deliver PLT Plan and PLT Report
- Produce and deliver mission operations procedures
- Produce and deliver change pages to the user's guide and programmer's maintenance manual for Imager/Sounder Simulators